## REMARKS

### Claim Status

Claims 1-20 are pending and are finally rejected in the present application. No additional claims fee is believed to be due.

### Rejection Under 35 USC §103(a) Over WO 02/48458 in View of U.S. 3,624,019

The Office Action states that Claims 1-20 are rejected under 35 U.S.C. §103(a) over Barnholtz et al (WO 02/48458 – hereinafter "Barnholtz") in view of Anderson (U.S. 3,624,019 – hereinafter "Anderson").

To establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Second, there must be a reasonable expectation of success of obtaining the claimed invention based upon the references relied upon by the Office Action. Third, the prior art reference (or references, when combined) must teach or suggest all the claim limitations. MPEP §2142, §2143; *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

**A. Claims 1-3: The cited prior art references do not teach or suggest all the claim limitations**

Claim 1 and Claims 2-3 which are dependent there from, recite, *inter alia*, a composition suitable for atomizing without excessive aerosolization (1) in the form of an oil-in-water emulsion comprising: (2) a continuous aqueous phase, (3) a discontinuous oil phase, (4) softening active ingredient, wherein the continuous aqueous phase and the discontinuous aqueous phase comprise (4a) an oil-in-water emulsion and (4b) the rheology of the aqueous phase is modified by the addition of a water-in-oil emulsion into the oil in water emulsion, (5) the water-in-oil emulsion comprising: (5a) a high molecular weight polymer in a discontinuous aqueous phase, and (5b) a continuous organic solvent phase.

The Office Action cites Barnholtz for teachings related to an aqueous softening composition and Anderson for a method for adding a high molecular weight polymer to a

continuous aqueous phase as a water-in-oil emulsion. However, combining the references, the cited art fails to teach an oil-in-water emulsion, an element of which includes a discontinuous oil phase. (Applicant's Claim 1) Barnholtz teaches a vehicle and an electrolyte dissolved in the vehicle (Barnholtz, p. 6, lines 14-23), which is not the same as Applicant's claimed limitation. Further, Anderson only teaches the use of a water-in-oil emulsion (Anderson, col. 2, lines 35-75, col. 3, lines 1-19), which is distinct from the oil-in-water limitation of the Applicant's claimed invention. Thus, not every element of Applicant's claim is taught by Barnholtz in view of Anderson. Accordingly, the obviousness rejection is improper and should be withdrawn.

In light of the preceding arguments, the Applicant respectfully submits that Claims 1-3 should be allowed over the 35 U.S.C. §103(a) rejection.

**B. Claims 4, 5, 10-13, and 15-20: There is no motivation to combine references / there is no reasonable expectation of success**

Anderson teaches the inversion of a water-in-oil emulsion without any other components except for a surfactant. (Anderson, Cols. 4-5). Anderson does not teach the inversion of water-in-oil emulsions into a vehicle that also contains a softening active ingredient as well as an electrolyte. Further, Anderson is concerned with the amount of material dispersed into the water-in-oil emulsion because of the risk that the materials may precipitate out of the emulsion if too much is added. It should be noted that Barnholtz teaches the inclusion of electrolytes as rheology modifying agents and will alter the viscosity of the Barnholtz compositions by disrupting the order of the liquid crystalline structure of the softening active ingredient. (Barnholtz, p. 22, lines 1-19). Therefore, Anderson contains no suggestion or motivation to combine the water-in-oil emulsion into a system comprising other rheology modifying agents such as electrolytes, as is taught in Barnholtz. At most, the cited references make it obvious to <u>try</u> to combine inversion of a water-in-oil emulsion with the Barnholtz composition. Of course, obviousness to try alone is not a proper ground for rejection. *In re Tomlinson, Hall, and Geigle*, 150 U.S.P.Q. 623, 626 [2] (CCPA 1966).

References may be modified to reject claims as prima facie obvious only if there is a reasonable expectation of success that the claimed invention will result. *In re Merck*

*& Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the present case, the Office Action has not established why one of ordinary skill in the art would have a reasonable expectation of success of obtaining the claimed invention based upon the teachings of the cited references.

Additionally, in light of the above-mentioned concerns in the Anderson teaching regarding the precipitation of material out of the emulsion, one of ordinary skill in the art would not expect to arrive at the Applicant's claimed invention by combining the teachings in Barnholtz with those in Anderson. From a theoretical standpoint, the effectiveness/stability of the water-in-oil emulsion as taught by Anderson becomes suspect if the additional elements taught by Barnholtz are added. A cursory analysis involves the Gibbs Free Energy of mixing:

$$\Delta G = \Delta H - T\Delta S$$

In order for mixing to occur $\Delta G$ must be negative. Even if we assume that $T\Delta S$ (change in the Entropy of Mixing) is increases while in solution then we must decide whether $\Delta H$ (change in the Enthalpy of Mixing) is positive or negative. $\Delta H$ increases when the solution is in a higher energy state and $\Delta H$ decreases when the solution is in a lower energy state (where a lower energy state can result from of interactions such as hydrogen bonding, Van der Waals forces, etc.) However, in this case, Barnholtz teaches a disruption of the crystal lattice. To a person of ordinary skill in the art, this implies an increased in $\Delta H$. Thus, because of the concerns in the Anderson teaching regarding the precipitation of material out of the emulsion, one of ordinary skill in the art would not expect to arrive at the Applicant's claimed invention by combining the teachings in Barnholtz with those in Anderson.

In light of the preceding argument, the Applicant respectfully submits that Claims 4, 5, 10-13, and 15-20 should be allowed over the 35 U.S.C. §103(a) rejection.

**C. Claims 6-9, Claim 14: There is no motivation to combine references**

Claim 6 recites a composition for softening an absorbent paper tissue comprising: (1) from about 10% to about 60% by weight of the composition of a quaternary ammonium softening active ingredient, (2) an electrolyte, (3) from about 0.0005% to

about 0.5% of a high molecular weight polymer, and (4) an aqueous vehicle in which the softening active ingredient is dispersed wherein the rheology of the vehicle is modified by adding (4a) a water-in-oil emulsion comprising (5a) the high molecular weight polymer in a discontinuous aqueous phase, and (5b) a continuous organic solvent phase.

Claim 14 recites a composition for softening an absorbent tissue comprising: (1) from about 25% to about 45% by weight of a quaternary ammonium softening active ingredient, (2) from about 0.0005% to about 0.2% by weight of a high molecular weight polymer delivered to the composition in the form of a water-in-oil emulsion comprising the high molecular weight polymer, water, and an organic solvent, (3) from about 5% to about 50% by weight of a plasticizer, (4) from about 0.1% to about 10% by weight of an electrolyte, and (5) a vehicle consisting of water in which the softening active ingredient is dispersed.

The Office Action has cited Barnholtz as teaching the addition of polymer to an aqueous softening composition (0.01% to 5%) (Barnholtz, p. 33, lines 16-20) within the Applicant's claimed range (0.0005% to about 0.5% by weight, Claim 6; 0.0005% to about 0.2% by weight, Claim 14). Further, the Office Action cites Anderson as teaching a method for adding a high molecular weight polymer to a continuous aqueous phase via a water-in-oil emulsion. However, Anderson specifically teaches using **at least 2%** by weight of polymer in the water-in-oil emulsion and teaches against using less than that amount. (Anderson, Col. 3, line 35)

Thus, there is no motivation to combine references to arrive at the Applicant's claimed invention because Anderson specifically teaches away from the Applicant's claimed limitation. In light of the preceding argument, the Applicant respectfully submits that Claims 6-9 and 14 should be allowed over the 35 U.S.C. §103(a) rejection.

## Conclusion

In light of the above remarks, it is requested that the Examiner reconsider and withdraw the rejection under 35 U.S.C. §103(a). Early and favorable action in the case is respectfully requested.

This response represents an earnest effort to place the application in proper form and to distinguish the invention as now claimed from the applied references. In view of

the foregoing, reconsideration of this application, entry of the amendments presented herein, and allowance of Claims 1-20 is respectfully requested.

Respectfully submitted,

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